

# FortiSwitch - Release Notes

Version 3.5.2

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FortiSwitch 3.5.2 Release Notes

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# Change Log

Date	Change Description
2017-01-26	Initial release.
2017-02-28	Added: "As a port is "disabled" by default, you must enable IGMP-S on both the VLAN and the port."

# Introduction

This document provides the following information for FortiSwitch 3.5.2 build 0265:

- [Supported models](#)
- [Special Notices](#)
- [Upgrade Information](#)
- [Product Integration and Support](#)
- [Resolved Issues](#)
- [Known Issues](#)

See the [Fortinet Document Library](#) for FortiSwitch documentation.

## Supported models

FortiSwitch 3.5.2 supports the following models:

<b>FortiSwitch</b>	FSW-108D-POE, FSW-124D, FSW-124D-POE, FSW-224D-FPOE, FSW-224D-POE, FSW-248D-FPOE, FSW-248D-POE, FSW-248D, FSW-424D, FSW-424D-FPOE, FSW-424D-POE, FSW-448D, FSW-448D-FPOE, FSW-448D-POE, FSW-524D-FPOE, FSW-524D, FSW-548D, FSW-548D-FPOE, FSW-1024D, FSW-1048D, FSW-3032D
<b>FortiSwitch Rugged</b>	FSR-112D-POE, FSR-124D

## What's new in 3.5.2

FortiSwitch 3.5.2 includes the following features and enhancements:

- Quick patch for bug fixing

# Special Notices

## Supported Features

Features support by model.

### FortiSwitch 100

Feature	FSW-108D-POE	FSR-112D-POE	FSW-124D	FSW-124D-POE	FSR-124D
48 port lag support					
801.1x port mode	✓	✓	✓	✓	✓
802.1x MAC base security mode			✓	✓	✓
ACL			✓	✓	✓
Auto module max speed detection & notification					
CPLD Software Upgrade Support for OS					
DHCP relay feature			✓	✓	✓
DHCP Snooping			✓	✓	✓
HTTP REST APIs	✓	✓	✓	✓	✓
HW based ECMP					

Feature	FSW-108D- POE	FSR-112D- POE	FSW-124D	FSW-124D- POE	FSR-124D
IGMP Snooping			✓	✓	✓
IP conflict detection & notification	✓	✓	✓	✓	✓
LAG min-max-bundle	✓	✓	✓	✓	✓
LLDP transmit	✓	✓	✓	✓	✓
LLDP-MED	✓	✓	✓	✓	✓
Loop-guard	✓	✓	✓	✓	✓
MAC-IP Binding					
POE-pre-standard detection	✓	✓		✓	
QOS: 802.1p support			✓	✓	✓
SFLOW	✓	✓	✓	✓	✓
Software Routing Only	✓	✓			
Static BFD			✓	✓	✓
Static L3/HW based routing			✓	✓	✓
Storm Control	✓	✓	✓	✓	✓
Virtual Wire			✓	✓	✓
vlan tag by ACL			✓	✓	✓
vlan tag by MAC/IP/802.1x	✓	✓	✓	✓	✓

## FortiSwitch 200

Feature	FSW-224D- POE	FSW-224D- FPOE	FSW-248D	FSW-248D- POE	FSW-248D- FPOE
48 port lag sup- port			✓	✓	✓
802.1x port mode	✓	✓	✓	✓	✓
802.1x MAC base security mode		✓	✓	✓	✓
ACL		✓	✓	✓	✓
Auto module max speed detection & notification					
CPLD Software Upgrade Sup- port for OS					
DHCP relay fea- ture		✓	✓	✓	✓
DHCP Snoop- ing		✓	✓	✓	✓
HTTPS REST APIs	✓	✓	✓	✓	✓
HW based ECMP					
IGMP Snoop- ing		✓	✓	✓	✓
IP conflict detection & notification	✓	✓	✓	✓	✓
LAG min-max- bundle	✓	✓	✓	✓	✓
LLDP transmit	✓	✓	✓	✓	✓



Feature	FSW-224D- POE	FSW-224D- FPOE	FSW-248D	FSW-248D- POE	FSW-248D- FPOE
LLDP-MED	✓	✓	✓		✓
Loop-guard	✓	✓	✓	✓	✓
MAC-IP Bind- ing					
POE-pre-stand- ard detection	✓	✓		✓	✓
QOS: 802.1p support		✓	✓	✓	✓
SFLOW	✓	✓	✓	✓	✓
Software Rout- ing Only	✓				
Static BFD		✓	✓	✓	✓
Static L3/HW based routing		✓	✓	✓	✓
Storm Control	✓	✓	✓	✓	✓
Virtual Wire		✓	✓	✓	✓
vlan tag by ACL		✓	✓	✓	✓
vlan tag by MAC/IP/802.1x	✓	✓	✓	✓	✓

## FortiSwitch 400

Feature	FSW-424D	FSW-424D- POE	FSW-424D- FPOE	FSW-448D	FSW-448D- POE	FSW-448D- FPOE
48 port lag sup- port						
802.1x port mode	✓	✓	✓	✓	✓	✓

Feature	FSW-424D	FSW-424D- POE	FSW-424D- FPOE	FSW-448D	FSW-448D- POE	FSW-448D- FPOE
802.1x MAC base security mode	✓	✓	✓	✓	✓	✓
ACL	✓	✓	✓	✓	✓	✓
Auto module max speed detection & notification	✓	✓	✓	✓	✓	✓
CPLD Software Upgrade Sup- port for OS						
DHCP relay fea- ture	✓	✓	✓	✓	✓	✓
DHCP Snoop- ing	✓	✓	✓	✓	✓	✓
HTTP REST API	✓	✓	✓	✓	✓	✓
HW based ECMP						
IGMP Snoop- ing	✓	✓	✓	✓	✓	✓
IP conflict detection & notification	✓	✓	✓	✓	✓	✓
LAG min-max- bundle	✓	✓	✓	✓	✓	✓
LLDP transmit	✓	✓	✓	✓	✓	✓
LLDP-MED	✓	✓	✓	✓	✓	✓
Loop-guard	✓	✓	✓	✓	✓	✓
MAC-IP Bind- ing						

Feature	FSW-424D	FSW-424D- POE	FSW-424D- FPOE	FSW-448D	FSW-448D- POE	FSW-448D- FPOE
POE-pre-stand- ard detection		✓	✓		✓	✓
QOS: 802.1p support	✓	✓	✓	✓	✓	✓
SFLOW	✓	✓	✓	✓	✓	✓
Software Rout- ing Only						
Static BFD	✓	✓	✓	✓	✓	✓
Static L3/HW based routing	✓	✓	✓	✓	✓	✓
Storm Control	✓	✓	✓	✓	✓	✓
Virtual Wire	✓	✓	✓	✓	✓	✓
vlan tag by ACL	✓	✓	✓	✓	✓	✓
vlan tag by MAC/IP/802.1x	✓	✓	✓	✓	✓	✓

## FortiSwitch 500

Feature	FSW-524D	FSW-524D-FPOE	FSW-548D	FSW-548D-FPOE
48 port lag support			✓	✓
802.1x port mode	✓	✓	✓	✓
802.1x MAC base security mode	✓	✓	✓	✓
ACL	✓	✓	✓	✓
Auto module max speed detection & notification	✓	✓	✓	✓
CPLD Software Upgrade Support for OS				

Feature	FSW-524D	FSW-524D-FPOE	FSW-548D	FSW-548D-FPOE
DHCP relay feature	✓	✓	✓	✓
DHCP Snooping	✓	✓	✓	✓
HTTP REST APIs	✓	✓	✓	✓
HW based ECMP	✓	✓	✓	✓
IGMP Snooping	✓	✓	✓	✓
IP conflict detection & notification	✓	✓	✓	✓
LAG min-max-bundle	✓	✓	✓	✓
LLDP transmit	✓	✓	✓	✓
LLDP-MED	✓	✓	✓	✓
Loop-guard	✓	✓	✓	✓
MAC-IP Binding	✓	✓	✓	✓
POE-pre-standard detection		✓		✓
QOS: 802.1p support	✓	✓	✓	✓
SFLOW	✓	✓	✓	✓
Software Routing Only				
Static BFD	✓	✓	✓	✓
Static L3/HW based routing	✓	✓	✓	✓
Storm Control	✓	✓	✓	✓
Virtual Wire	✓	✓	✓	✓
vlan tag by ACL	✓	✓	✓	✓
vlan tag by MAC/IP/802.1x	✓	✓	✓	✓

## FortiSwitch 1000

Feature	FSW-1024D	FSW-1048D
48 port lag support		✓
802.1x port mode	✓	✓
802.1x MAC base security mode	✓	✓
ACL	✓	✓
Auto module max speed detection & notification	✓	✓
CPLD Software Upgrade Support for OS	✓	✓
DHCP relay feature	✓	✓
DHCP Snooping	✓	✓
HTTP REST APIs	✓	✓
HW based ECMP	✓	✓
IGMP Snooping	✓	✓
IP conflict detection & notification	✓	✓
LAG min-max-bundle	✓	✓
LLDP transmit	✓	✓
LLDP-MED	✓	✓
Loop-guard	✓	✓
MAC-IP Binding	✓	✓
POE-pre-standard detection		
QOS: 802.1p support	✓	✓
SFLOW	✓	✓
Software Routing Only		
Static BFD	✓	✓
Static L3/HW based routing	✓	✓

Feature	FSW-1024D	FSW-1048D
Storm Control	✓	✓
Virtual Wire	✓	✓
vlan tag by ACL	✓	✓
vlan tag by MAC/IP/802.1x	✓	✓

## FortiSwitch 3000

Feature	FSW-3032D
48 port lag support	
802.1x port mode	✓
802.1x MAC base security mode	✓
ACL	✓
Auto module max speed detection & notification	
CPLD Software Upgrade Support for OS	
DHCP relay feature	✓
DHCP Snooping	✓
HTTP REST APIs	✓
HW based ECMP	✓
IGMP Snooping	✓
IP conflict detection & notification	✓
LAG min-max-bundle	✓
LLDP transmit	✓
LLDP-MED	✓
Loop-guard	✓
MAC-IP Binding	✓

Feature	FSW-3032D
POE-pre-standard detection	
QOS: 802.1p support	✓
SFLOW	✓
Software Routing Only	
Static BFD	✓
Static L3/HW based routing	✓
Storm Control	✓
Virtual Wire	✓
vlan tag by ACL	✓
vlan tag by MAC/IP/802.1x	✓

## Default STP edge-port state changed to enabled

The default STP edge-port state on all switch interfaces is changed to **enabled**.

This change allows a port to transition directly the forwarding state, and skips the listening and learning stages. When a port is an edge port, it doesn't generate topology changes on link status changes, which results in a more stable network. These are key advantages of RSTP faster convergence and less topology changes. A STP enabled ports still transmits BPDU. When a STP enabled port receives a BPDU, it immediately loses edge port status and becomes a normal spanning tree port. A ports edge-status state can still be disabled if desired by using the following CLI commands:

```
S124DN3W14000095 # config switch interface
S124DN3W14000095 (interface) # edit port9
S124DN3W14000095 (port9) # set edge-port
disabled Disable interface as edge port.
enabled Enable interface as edge port.
```

## Connecting multiple FSW-R-112D-POE switches

The FSW-R-112D-POE switch does not support interconnectivity to other FSW-R-112D-POE switches using the PoE ports. Fortinet recommends using the SFP ports to interconnect switches.

## Configuring IGMP-Snooping under "vlan enable" + "port based disable"

IGMP-Snooping configured under "vlan enable" + "port based disable", does not work well; only "vlan level enable" + "port level enable" can make snooping work. So, because the port is "disabled" by default, you must enable IGMP-Snooping on both the VLAN AND the port.



# Upgrade Information

FortiSwitch 3.5.2 supports upgrading from FortiSwitch 3.2.0 and later.

## Cooperative Security Fabric Upgrade

FortiOS 5.4.1 greatly increases the interoperability between other Fortinet products. This includes:

- FortiClient 5.4.1
- FortiClient EMS 1.0.1
- FortiAP 5.4.1
- FortiSwitch 3.4.2

The upgrade of the firmware for each product must be completed in a precise order so the network connectivity is maintained without the need of manual steps. Customers must read the following two documents prior to upgrading any product in their network:

- *Cooperative Security Framework - Upgrade Guide*
- *FortiOS 5.4.0 to 5.4.1 Upgrade Guide for Managed FortiSwitch Devices*

This document is available in the Customer Support Firmware Images download directory for FortiSwitch 3.4.2.

# Product Integration and Support

## FortiSwitch 3.5.2 support

The following table lists 3.5.2 product integration and support information.

<b>Web browser</b>	<ul style="list-style-type: none"><li>• Microsoft Internet Explorer version 11</li><li>• Mozilla Firefox version 49</li><li>• Google Chrome version 54</li></ul> <p>Other web browsers may function correctly, but are not supported by Fortinet.</p>
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**FortiOS  
(FortiLink Support)**

- 5.4.1 and later  
FortiSwitch must be upgraded first before upgrading FortiOS. Please read the *Upgrade Information > Cooperative Security Fabric Upgrade* section in this document.
- 5.4.0  
FortiSwitch models: FSW-108D-POE, FSW-124D, FSW-124D-POE, FSW-224D-POE, FSW-224D-FPOE, FSW-248D-POE, FSW-248D-FPOE, FSW-424D, FSW-424D-POE, FSW-424D-FPOE, FSW-448D, FSW-448D-POE, FSW-448D-FPOE, FSW-524D, FSW-524D-FPOE, FSW-548D, FSW-548D-FPOE, FSW-1024D, FSW-1048D, FSW-3032D, FSR-112D-POE  
  
FortiGate models: FG-60D, FG-60D-POE, FG-90D, FG-90-POE, FG-100D, FG-140D, FG-140D-POE, FG-140D-POE-T1, FG-200D, FG-240D, FG-280D, FG-280D-POE, FG-600C, FG-800C, FG-1000C, FG-1500D, FG-1200D, FG-3700D, FG-3700DX  
  
FortiWiFi models: FWF-60D, FWF-60D-POE, FWF-90D, FWF-90D-POE
- 5.2.3 and later  
FortiSwitch models: FSW-108D-POE, FSW-124D, FSW-124D-POE, FSW-224D-POE, FSW-224D-FPOE, FSR-112D-POE  
  
FortiGate models: FG-60D, FG-90D, FG-100D, FG-140D, FG-200D, FG-240D, FG-280D, FG-600C, FG-800C, FG-1000C, FG-60D-POE, FG-90D-POE, FG-140D-POE, FG-140D-POE-T1, FG-280D-POE  
  
FortiWiFi models: FWF-60D, FWF-60D-POE, FWF-90D, FWF-90D-POE
- 5.2.2  
FortiSwitch models: FSW-224D-POE  
  
FortiGate models: FG-90D, FG-90D-POE, FG-100D, FG-140D, FG-140D-POE, FG-140D-POE-T1, FG-200D, FG-240D, FG-280D, FG-280D-POE, FG-600C, FG-800C, FG-1000C  
  
FortiWiFi models: FWF-90D, FWF-90D-POE

# Resolved Issues

The following issues have been fixed in 3.5.2. For inquiries about a particular bug, please contact [Customer Service & Support](#).

Bug ID	Description
395846	FSW does not forward DHCP request packets from an IP phone when the 802.1p value in the LLDP profile is non-zero
391133	FSW does not reboot to FortiLink mode after auto-discover and auto-auth
395332	After rebooting FSW, prompt error points to fortlink trunk
395147	Log generated by link-down in multi-stage trunk can't display in the GUI
394096	End of Daylight Savings (DST) timezone Turkey/Istanbul GMT +3
395371	"mcast routing" fails hereafter once you change the igmp-snooping setting at the FSW vlan/port level
401039	"Kernel panic" results upon loading a new image on FSW1024D with a corrupted HWCFG
401277	Basic routing disabled for some switches
402302	Guest VLAN assignment remembered and MAC/Forwarding table is not updated
401286	A CLI crash occurs while upgrading BIOS
402492	IP-MAC binding fails if you use global configuration for the port
403117	Authenticated MACs do not appear in the <b>diagnose switch mac-address list</b> command output
403898	PoE platforms may hang during boot up
400794	FAN status always "alarmed" on 448DFP and 248DFP; FAN1 speed is inconsistent with setting
403117	802.1x : authenticated MACs do not appear in the <b>diagnose switch mac-address list</b> command output
404192	FSR112P POWER LED incorrect (e.g., PWR1 LED is controlled by the PWR2 outlet; PWR2 LED is always off)

Bug ID	Description
400719	Do not use (i.e., remove) nCfg macros in os_bios.c else potential for crash
355050	Coordinated SW upgrade of stacked/tiered switches (upgrade caused fortilink to go down)

## Known Issues

The following known issues have been identified with 3.5.2. For inquiries about a particular bug or to report a bug, please contact [Fortinet Customer Service & Support](#).

Bug ID	Description
377609	PoE port does not reboot when you remove and insert the link.
393845	Newly-created static MACs are missing from the MAC address table.
393856	LLDP-MED does not time out quickly-enough on FSR124D.
393622	<b>get switch dhcp-snooping status</b> does not report correctly snoop-enabled-vlans.
383506	FSW Standalone: EAP tunnel is terminated at Authenticator(FSW) instead of at Auth-Server (FAC).

